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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/985,741	11/06/2001	Hiroshi Koide	215810US3	4234
22850	7590	03/24/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			PHAM, HAI CHI	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/985,741

Applicant(s)

KOIDE, HIROSHI

Examiner

Hai C Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-8, 10-14, 17-34, 36-39 and 41-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 6-8, 17-34, 36-39 and 41-43 is/are allowed.
- 6) ☒ Claim(s) 10, 11 and 13 is/are rejected.
- 7) ☒ Claim(s) 12 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/16/03, 11/6/03, 12/17/03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori et al. (U.S. 5,995,802) in view of Nagase et al. (JP 2000-227725).

Mori et al. discloses an image forming apparatus comprising a belt driving means comprising a first roller (drive roll 25) positioned at one end of the belt (transfer belt 24) for driving said belt, at least one rotary body (photoreceptor drums 6Y, 6C, 6M, 6B) arranged side by side in a direction of movement of the belt and pressed against said belt directly, wherein the first roller has allowable eccentricity reduced to a range such that it does not effect a variation of a speed of the belt (the eccentricity of the drive roll being reduced through the precision of the manufactured drive roll [see col. 19, lines 50-62] and/or by setting the diameter of the drive roll to a required ratio with respect to the diameter of the photoreceptor drum [col. 33, line 66 to col. 34, line 50]).

However, Mori et al. fails to teach the stationary guide body adjoining the drive roller and contacting the belt at a side where the rotary body is positioned.

Nagase et al. discloses an image forming device comprising a belt driving means comprising a first roller (drive roller 14d) positioned at one end of the belt (intermediate

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driving roll so as to sandwich the inner belt in between to prevent any fluctuation of the driven inner belt so that the eccentricity of the driving roll does not occur (see paragraph [0027] and [0036]).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the stationary guide member as taught by Kobayashi et al. in the device of Mori et al. The motivation for doing so would have been to prevent any fluctuation of the photosensitive belt so that the eccentricity of the drive roller does not occur as suggested by Kobayashi et al.

With regard to claim 11, Mori et al. further teaches the drive roll (25) comprising a motor (80).

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mori et al. in view of Kobayashi et al., as applied to claims 10, 11 above, and further in view of Noguchi et al. (JP 10-260590).

Mori et al., as modified by Kobayashi et al., discloses all the basic limitations of the claimed invention except for the drive roller and the shaft of the drive roll being molded integrally with each other.

Noguchi et al. discloses an image forming apparatus having an endless belt (4) driven by a drive roll (2A) integrally formed with a shaft (2aa), and drive roll being driven by a motor (70).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the drive roller with an integrally formed shaft

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transfer belt 14a) for driving said belt, at least one rotary body (photoreceptor drum 10, Fig. 3 or 10a and 10b, Fig. 16) arranged side by side in a direction of movement of the belt and pressed against said belt directly, a stationary guide body (guide plate 271, Fig. 3) adjoining said drive roller and contacting the belt at a side where said rotary body is positioned.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the guide plate as taught by Nagase et al. in the device of Mori et al. The motivation for doing so would have been to prevent any fluctuation, e.g., wrinkling and float, of the belt and thus to prevent unevenness of the printed image as suggested by Nagase et al. at paragraph [0082].

With regard to claim 11, Mori et al. further teaches the drive roll (25) comprising a motor (80).

3. Alternatively, claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori et al. in view of Kobayashi et al. (JP 08*110669).

Mori et al. discloses all the basic limitations of the claimed invention (see rejection in paragraph 3 above) except for the stationary guide body adjoining the drive roller and contacting the belt at a side where the rotary body is positioned [e.g., opposite to the drive roller with respect to the belt].

Kobayashi et al. discloses a color image forming device capable of preventing color misregistration by incorporating an inner belt (17A) driven by the driving roll (17B) along with a tensioner (17C), wherein a fixed guide (17D) is provided opposite to the

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as taught by Noguchi et al. in the modified device of Mori et al. The motivation for doing so would have been to prevent any slip or misengagement between the shaft and the drive roller such that the belt is accurately driven, and the color misregistration would be avoided.

Allowable Subject Matter

5. Claims 1-4, 6-8, 17-34, 36-39, 41-43 are allowed.
6. Claims 12 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The following is an examiner's statement of reasons for allowance: the primary reason for the indication of the allowability of claims 1-4 and 6-8, is the inclusion therein, in combination as currently claimed, of the limitations that "a second roller adjoining said first roller and contacting the belt at a side where said rotary body is positioned" and "wherein said first and said second roller each have allowable eccentricity reduced to a range that does not effect a variation of a speed of the belt", which are not found taught or fairly suggested by the prior art made of record considered alone or in combination.

The primary reason for the indication of the allowability of claims 12, 14, 17-34, 36-39 and 41-43 has been stated in the Office action issued on 10/30/03.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

8. Applicant's arguments with respect to claims 10, 11 and 13 have been considered but are moot in view of the new grounds of rejection as presented in this Office action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C Pham whose telephone number is (571) 272-2260. The examiner can normally be reached on M-F 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HAI PHAM
PRIMARY EXAMINER

March 13, 2004